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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,167	12/15/2003	Mukunda Krishnappa	ALTR:024	4413
7590 05/31/2005			EXAMINER	
Maximilian R. Peterson O'KEEFE, EGAN & PETERMAN Building C, Suite 200 1101 Capital of Texas Highway South Austin, TX 78746			CHANG, DANIEL D	
			ART UNIT	PAPER NUMBER
			2819	

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/736,167

Applicant(s)

KRISHNAPPA ET AL.

Examiner

Daniel D. Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Objections

Claim 40 is objected to under 37 CFR 1.75 as being a duplicate of claim 39. It is recommended that the word, "passive" in line 2 of claim 39 or 40 be changed to --active--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-13, 19-25, and 31-50 are rejected under 35 U.S.C. 102(b) as being anticipated by Lawman (US 6,028,445).

Regarding claim 1, Lawman discloses, at least in Fig. 9, a programmable logic device (PLD)(FPGA 910), the programmable logic device (PLD) comprising configuration circuitry (920, 925, 935, 940), the configuration circuitry adapted to receive serial configuration data (col. 2, lines 30+; col. 6, lines 5+), the configuration circuitry further adapted to program a function of the programmable logic device (PLD) without using an input buffer to store the configuration data (see 920 or 120 in Fig. 1).

Regarding claim 2, Lawman discloses, at least in Fig. 9, that the configuration circuitry receives the serial configuration data from a configuration device external (930) to the programmable logic device (PLD).

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Regarding claim 3, Lawman discloses, at least in Fig. 9, that the function of the programmable logic device (PLD) is programmed without stalling the configuration device (col. 8, lines 12+).

Regarding claims 4 and 5, Lawman discloses, at least in Fig. 9, that the function of the programmable logic device (PLD) is programmed in an active (if FPGA is coupled to SPROM or EPROM) or passive (if FPGA is coupled to microprocessor; see col. 2, lines 29+) configuration mode.

Regarding claim 6, Lawman discloses, at least in Fig. 9, that the configuration circuitry is further adapted to receive compressed serial configuration data (col. 8, lines 21+).

Regarding claim 7, Lawman discloses, at least in Fig. 9, that the configuration circuitry comprises a decompression circuitry, the decompression circuitry adapted to decompress the compressed serial configuration data into decompressed configuration data (col. 8, lines 28+).

Regarding claim 8, Lawman discloses, at least in Fig. 9, that the configuration circuitry further comprises a data format converter circuit, the data format converter circuit adapted to convert the decompressed configuration data into parallel configuration data (the parallel configuration data configures configuration port to accept parallel data from high speed device 1060; see col. 9, lines 10-18).

Regarding claims 35 and 36, Lawman discloses, at least in Fig. 9, that the programming the function of the programmable logic device comprises programming a programmable logic circuit or programmable interconnect (col. 1, lines 44+).

Claims 9-13, 18-25, 31-34, 37-50 are essentially the same in scope as apparatus claims 1-8 and 35-36, and are rejected similarly.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14-18 and 26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lawman (US 6,028,445) in view of Stanton et al. (US 6,748, 456).

The teachings of Lawman have been discussed above.

Lawman does not specifically disclose a decompression state machine, registers, a multiplexer, or a FLASH memory.

Stanton et al. discloses a decompression state machine (312), registers (at least 318), a multiplexer (304 or 344), or a FLASH memory (112) for the purpose of configuring PLD.

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have provided the PLD of Lawman with the configuration controller as taught by Stanton in order to provide flexible configuration capabilities and use data compression.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Stanton et al. (US 6,748,456 B1) discloses PLD configuration port architecture and logic.

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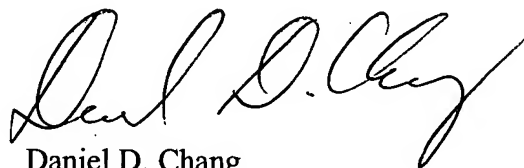
Couts-Martin et al. (US 6,259,271 B1) discloses configuration memory integrated circuit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel D. Chang whose telephone number is (571) 272-1801.

The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Tokar can be reached on (571) 272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel D. Chang
Primary Examiner
Art Unit 2819

dc

DANIEL CHANG
PRIMARY EXAMINER